

## ABSTRACT

Method of separation that uses at least one organic chemical reaction to alter the molecular structure of a substance or substances (102) so that a mechanical method of separation can be used to cause the separation of one or more substances from one or a group of substances (104). The organic chemical reaction alters the molecular structure by adding at least one atom to the molecular structure or by subtracting at least one atom from the molecular structure. The mechanical method of separation uses the differing physical characteristics of substances to physically change the place or position of substances to remove or isolate the substances from a combination or a mixture absent any chemical reaction. The organic chemical reaction and the mechanical method of separation are used in combination to cause the separation of substances that otherwise could not be separated by the mechanical method of separation alone.